

What They Do

Manufacturing Technicians help produce and package products. They operate and maintain a variety of manufacturing machines and equipment, making sure they work well and operate correctly. Technicians read dials and meters to verify equipment functions according to specifications. They clean, lubricate, connect, install, replace, or make minor adjustments or repairs to hoses, pumps, filters, or screens to maintain processing equipment, using hand tools. They order enough raw materials to ensure an adequate supply.

Manufacturing Technicians follow standard operating procedures to prepare a product. They may be responsible for inventory, weighing and measuring raw materials, and distributing them to the right machine at the right time. Technicians mix ingredients according to specifications. They use a computer to keep detailed records of the production process to ensure compliance with federal regulations. They may write standard operating procedures and assist with product sampling. Technicians maintain logs of instrument readings, test results, and shift production. They may have to work in special clothing in a “clean room” environment.

*Manufacturing Technicians in the biotech industry share characteristics of Team Assembler; Separating, Filtering, Clarifying, Precipitating and Still Machine Setters, Operators and Tenders; Crushing, Grinding and Polishing Machine Setters, Operators and Tenders; Extruding, Forming, Pressing, and Compacting Machine Setters, Operators and Tenders; and Other Production Workers. Detailed descriptions of these occupations may be found in the Occupational Information Network (O*NET) at online.onetcenter.org.*

Important skills, knowledge, and abilities include:

- ▶ Mechanical – Knowledge of machines and tools, including their designs, uses, repairs, and maintenance.
- ▶ Operation Monitoring – Watching gauges, dials, or other indicators to make sure a machine is working properly.
- ▶ Operation and Control – Controlling operations of equipment or systems.
- ▶ Control Precision – The ability to quickly and repeatedly adjust the controls of a machine or a vehicle to exact positions.
- ▶ Production and Processing – Knowledge of raw materials, production processes, quality control, costs, and other techniques for maximizing the effective manufacture and distribution of goods.
- ▶ Problem Sensitivity – The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- ▶ Operation Monitoring – Watching gauges, dials, or other indicators to make sure a machine is working properly.

Manufacturing Technicians

Biotechnology Careers

Training/Requirements

- Certification or associate degree in biotechnology or related health sciences field.
- Several years of experience in sterile manufacturing environment preferred.

What's the Job Outlook?

While the Bureau of Labor Statistics does not collect data on Manufacturing Technicians, the occupations listed below are found in the biotechnology industry and have similar duties. The California outlook and wage figures are drawn from all industries and represent occupations comparable to Manufacturing Technicians.

Standard Occupational Classification	Estimated Number of Workers 2002	Estimated Number of Workers 2012	Average Annual Openings	2005 Wage Range (per hour)
Team Assemblers				
51-2092	113,900	113,700	2,920*	\$8.39 to \$13.30
Separating, Filtering, Clarifying, Precipitating and Still Machine Setters, Operators and Tenders				
51-9012	5,800	6,900	300	\$12.73 to \$20.05
Crushing, Grinding and Polishing Machine Setters, Operators and Tenders				
51-9021	2,900	2,900	80*	\$9.46 to \$16.41
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators and Tenders				
51-9041	6,200	6,200	160*	\$9.57 to \$15.82
Production Workers, All Other				
51-9199	49,800	62,700	2,480	\$7.70 to \$10.19

These figures do not include self-employment.

Average annual openings include new jobs plus openings due to separations.

**This figure represents annual openings due to separations only.*

Source: www.labormarketinfo.edd.ca.gov, *Employment Projections by Occupation and OES Employment & Wages by Occupation*, Labor Market Information Division, Employment Development Department.

Additional Sources of Information

National Association of Manufacturers
(202) 637-3000
www.nam.org

National Center for Manufacturing Sciences
(734) 995-0300
www.ncms.org

Occupational Information Network (O*NET)
<http://online.onetcenter.org>

EDD Employment
Development
Department
State of California

LMID
Labor Market Information Division
"Your Information Source"